



# **Chemical Emergency Preparedness and Prevention Office (CEPPO)**

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## **ACCIDENT PREVENTION SUBCOMMITTEE MEETING**

**Hall of States - Washington, DC**

**September 9, 1998**

**8:30 a.m. - 4:30 p.m.**

### **I. OPENING REMARKS (Jim Makris)**

Jim Makris opened the Accident Prevention Subcommittee meeting with an introduction of the participants. He introduced two new members to the Subcommittee: Bert Langley, from the Georgia Environmental Protection Department, and Jim Meade, from the Department of Justice. Mr. Makris also announced that John Miles is now working as the OSHA Region 6 Administrator and that he would be replaced on the Subcommittee. Also present was Robert Fisher, a mediator from RESOLVE, to assist with the meeting throughout the day.

Mr. Makris outlined the agenda for the day and announced that Peter Robertson, who will become EPA's Acting Deputy Administrator replacing Fred Hansen in October, and Tim Fields, Acting Assistant Administrator for EPA's Office of Solid Waste and Emergency Response (OSWER), would join the Subcommittee for the discussion on security issues in the afternoon.

### **II. RMP IMPLEMENTATION WORKGROUP ISSUES (Bill Finan/Tim Gablehouse)**

Bill Finan, EPA/CEPPO and Chair of the RMP Implementation Workgroup, reminded the Subcommittee that the RMP Implementation Workgroup is composed of 30-35 members, with balanced membership from States, Local Emergency Planning Committees (LEPCs), industry, environmental and non-profit organizations, EPA/CEPPO, and other EPA offices. Mr. Finan stated that the Workgroup's original charter scheduled the Workgroup to complete its work by December 1998. Mr. Finan stated that the Workgroup has been a valuable opportunity for State and local partners to discuss with EPA, industry, the public, and others implementation of the RMP program. With this in mind, Mr. Finan asked the Subcommittee to consider whether the Workgroup should remain in existence beyond December 1998.

Mr. Finan stated that with Workgroup input, EPA developed a Product Development Matrix last December, which is updated monthly and is available via the Internet. The Product Development Matrix is used internally by EPA as a management tool and externally as a means for Workgroup members, Subcommittee members, and the public to keep up-to-date on the status of RMP implementation products being developed. Mr. Finan noted that the matrix is widely used and has been well received by stakeholders.

Next, Tim Gablehouse (Jefferson County LEPC) reported that the issues raised within the Workgroup have been, so far, easily resolved. Mr. Gablehouse announced that guidance documents are being developed on two subjects: audit protocols and LEPCs. The guidance for conducting audits under RMPs will address protocols to conduct inspections and audits on risk management plans; the document will be used by both implementing agencies and industry. The LEPC guidance will provide information on how LEPCs can use RMP information to incorporate accident prevention into existing preparedness activities.

Mr. Gablehouse stated that the only issue of contention in Workgroup discussions involved whether the maximum distance to endpoint for worst-case scenarios in the look-up tables in the Offsite Consequence Analysis (OCA) Guidance should be decreased from twenty-five to ten miles because of the diminishing accuracy of the results beyond ten miles. Several Workgroup members expressed concern that there is not much confidence in results at a distance of 25 miles, so the maximum should be decreased to ten miles. However, the distance of 25 miles was originally incorporated into the OCA Guidance, and distances much greater than 25 miles are provided in other

modeling tools. Ultimately, while recognizing the potential deficiencies, EPA decided to provide as much information as possible and thereby kept the maximum distance to endpoint at 25 miles.

Mr. Gablehouse stated that he recommends that the Workgroup remain in existence beyond December 1998. He noted that there is still some work to be completed on the guidance documents being developed. However, most importantly, the Workgroup has provided state and local representatives with a valuable forum to discuss issues and problems. Mr. Gablehouse stated that in his conversations, many State and local government representatives have expressed the desire to have this opportunity to continue discussions.

### *Discussion*

- In response to a question, Mr. Finan stated that RMP\*Comp is a computerized version of the look-up tables in the OCA Guidance and is currently available on the Internet from the National Oceanic and Atmospheric Administration (NOAA). When the OCA Guidance is finalized, the software will be modified to reflect any changes.
  - In response to a question regarding whether the use of RMP\*Comp was mandatory, Mr. Finan stated that use of RMP\*Comp is optional; any model that uses the parameters specified in the regulation can be employed.
  - Jack Weaver questioned whether, throughout the development of RMP\*Comp, the Agency made attempts to compare the results of RMP\*Comp with other models. Mr. Finan stated that comparisons did occur during the development of the OCA Guidance. He noted that most of the charts are similar in their imprecision. However, EPA is committed to make better modeling techniques available.
  - Mr. Makris stated that it is important that industry approaches the resolution of the modeling issue as a cooperative effort. He noted that although some progress has been financed by industry supporters, it never became a high enough priority to result in the development of really powerful modeling techniques.
- Art Burk stated that when EPA conducted the Kanawha Valley study, it employed very sophisticated modeling techniques, based on the assumption that worst-case weather conditions would remain constant for the duration of the release. However, EPA needs to recognize that when calculations have been taken for the duration of a specific release, meteorological conditions have never stayed the same. In response, Mr. Finan stated that the Rule states that if a facility has the ability to document certain weather conditions, the facility does not need to use the worst-case numbers provided in the model.
- Mr. Gablehouse stated that he has observed (in conversations with LEPCs, facilities, and others) that having such a modeling tool available has eased many minds when it comes to understanding worst-case scenarios. In addition, debates between facilities, local interest groups, and LEPCs over compliance issues do not result. Furthermore, it is widely recognized that modeling will be used as a planning response tool. Mr. Gablehouse stated that it is important to make the distinction between a response planning tool (used for pre-planning and responding to actual releases) versus an information planning tool, such as RMP\*Comp, which allows users to make qualitative comparisons.
- In response to a question, Mr. Gablehouse stated that the Workgroup is addressing risk communication issues in a guidance document.
  - Mr. Burk stated that he supports the recommendation to continue the Workgroup. He noted that very soon many industries will be initiating RMP communications with their communities and will not wait until June 1999. Therefore, it is important to have issues addressed and resolved as soon as possible.
  - Mr. Finan asked the Subcommittee for input on EPA's role in risk communication. He stated that, since Kanawha Valley, there been a lot of sophisticated safety programs. As a result, EPA's role has come into question. EPA literature encourages LEPCs to address public concerns about chemicals at facilities in their district. However, it is possible for an individual to go directly to EPA at the regional or national level inquiring about chemicals in their community. With this in mind, Mr. Finan asked for input on EPA's role in risk communication associated with chemical hazards in a particular community.

- Mr. Burk stated that EPA, LEPCs, and industry all have very important roles in the process. The Agency has the important role of listening to what is going on in the local community and communicating, from their perspective, information about the RMP program and their role in enforcement.
- Mr. Gablehouse stated that it is important for EPA to distinguish between making value judgements at the local level versus being the honest arbiter of information. EPA has an important role as a reliable source of specific, detailed information; however, participating in the political process, when there are attempts to associate meaning to that data, is not the Agency's role. In addition, it is equally important for the Agency to provide tools and techniques that have worked in other areas.
- Larry Gales stated that, in a perfect world, EPA, industry, SERCs, LEPCs, etc., are all stakeholders and partners. However, this is not a perfect world, and in many areas resources are not available to do all the wonderful things that they would like to be able to do. National resources are not available at the LEPC level. Mr. Gales expressed concern regarding the impact of assigning additional responsibilities to LEPCs and even their willingness to exist, as they remain voluntary and unfunded.
- Mr. Langley stated that objective information is the best thing that can be provided. EPA, like states, cannot be involved in local land use decisions. Even more important, EPA has an important role in disseminating the message that risk communication is a tool that can be used at the local level in varying degrees. It is not EPA's role to determine whether a particular action is safe or unsafe, but what information is available about the situation. It is then up to those at the local level to decide the level of risk.
- Jackie Warren agreed that LEPCs have tremendous variations in resources and abilities to deal with responsibilities that are handed to them. Local organizations need access to information to raise the appropriate questions and keep decision makers honest. Therefore, EPA needs to make information as easily accessible as possible, while being mindful of their role as the implementer of a statute designed to prevent harmful acts from occurring. To do this, EPA must have some ground rules in their regulations and guidance to establish the floor beneath which it is unacceptable to go, as well as establishing an auditing and compliance program to ensure that the information is reliable and reasonable. Ms. Warren stated that there is so much pressure on EPA to push responsibility down to the state and local level and make the program as flexible as possible that the program may be weakened.
- Dr. Irv Rosenthal stated that the Rule has no provisions on the likelihood of risk. The Agency will do a disservice by equating worst-case consequences with risk. The reality is that EPA has limited resources and, therefore, the question is not whether EPA can provide risk communication, but whether EPA will provide risk communication in place of another activity. EPA has certain mandates under the law that should be considered first, such as verifying the factual basis of the information being made available. Therefore, EPA needs to address the overall prioritization of all Agency activities. EPA should not take responsibility to remedy situations that it has not been delegated to remedy under the law.
- Governor Tony Earl stated EPA has very limited credibility at the local level, and EPA attempts to become involved in local decisions will not only further reduce their credibility, but cause it to work against the Agency. The best EPA can do is provide the objective information that will allow thoughtful decisions to be made. When EPA attempts to intrude into decision making, even more credibility is lost.

In conclusion, Mr. Makris asked for the Subcommittee recommendation on extending the life of the RMP Implementation Workgroup. The Subcommittee agreed that the RMP Implementation Workgroup should remain in existence until a later time, as yet to be determined. Mr. Finan stated that the purpose of the Workgroup for the next year will be to provide a forum for various stakeholders to discuss problems or issues that may arise.

### III. EVALUATION OF CHEMICAL ACCIDENT PREVENTION (Dr. Sam Mannan)

Mr. Makris stated that there are three levels of evaluation for the work of the RMP Implementation Workgroup:

1. Public reaction to products produced (e.g., quality, sequence, time, etc.). This evaluation is performed on products ranging from risk communication to guidance. This type of evaluation falls under the responsibility of Kathy Jones, Program Implementation Division, CEPPO.
2. Relation of the work to Government Performance and Results Act (GPRA) goals. This evaluation must be reported.
3. Missing since 1986, the third type of evaluation is an overall evaluation of general improvements in chemical accident prevention. This evaluation would take into account many factors, including SARA Title III, Responsible Care management systems, the work of labor groups, and many more. The evaluation would try to determine if all of these factors are making things better.

Mr. Makris stated that the tendency is to say yes, that things are getting better, to justify the existence and expense of many programs. However, an evaluation of the total effect of all programs and factors needs to be performed. The Mary Kay O'Connor Process Safety Center (the Center), located at Texas A&M University, is starting to attempt this type of evaluation. The Center emerged from a tragedy associated with the 1989 Phillips Petroleum accident. The husband of Mary Kay O'Connor, who was killed in the accident, endowed the center.

Dr. Sam Mannan introduced himself as the Director of the Center and a professor of chemical engineering at Texas A&M. He stated that Texas A&M was chosen for the location of the center because it is the second largest campus in the US (with 42,000 students), it has the sixth largest research budget (about \$375 million), and it has 10,000 students in engineering programs, with about 1,000 in chemical engineering. The university also has strong ties to industry.

Dr. Mannan stated that a lot of progress has been made in chemical safety program assessment at the Center. However, there are still information gaps and misunderstandings. In March 1998, the Center held its inaugural conference, which included dialog between industry, regulators, and academia. They wanted to look at the current progress and chart a future course in chemical safety program assessment.

According to Dr. Mannan, process safety is a continuous effort and is constantly changing. The roles of industry, government, and stakeholders are fluid, as are the goals of process safety, and both are often influenced by political pressures and stakeholder interests. Therefore, according to Dr. Mannan, everyone involved needs to understand each stakeholder's interests, what they expect of the other stakeholders, and the stakeholders' roles. Dr. Mannan stated that these points are not yet understood completely. Dr. Mannan emphasized that stakeholders are government agencies, industry, and the public, including those members of the public who do not attend public meetings or participate in the process.

Dr. Mannan addressed the issue of small businesses by saying that large companies often have the resources and capabilities to address process safety problems; however, it is more of a challenge for small businesses. The major issue to consider is that, even when safety process problems have been solved in larger companies, smaller businesses will still be a major concern.

The goals of the Chemical Safety Program Assessment Project are:

1. Develop national consensus goals to dictate the future direction of the project. According to Dr. Mannan, this is not an easy task, but it needs to be a starting point.
  2. Develop plans for accomplishing the consensus goals. Accomplishing the goals might be measured by injury or accident rates -- the group must decide which way is best to judge success.
  3. Eliminate redundancies and overlaps. This will make assessment more efficient and enable organizations to share resources.
  4. Identify gaps in information that are revealed when overlaps are eliminated.
  5. Assign credit (cause and effect). This stage involves asking questions like "Are emergency response plans of a certain agency having the desired effect?" Dr. Mannan emphasized that this is a very difficult step.
- The Center is taking a phased approach to the project. Dr. Mannan described Phase I, the "Evolution of Chemical Safety":

- Assess all available data and analysis techniques for accident release rates. The data is expected to include incident rates, casualty losses, and other similar measures.
- Analyze the data and techniques in safety metrics developed by various organizations. The Center will use industry databases to check for data consistency.
- Peer review the data by an ombudsman group made up of representatives from government, industry, and other groups. Several qualitative and quantitative measures already exist and will be used in Phase I. These include number of fatalities on- and offsite.

As Phase I is being completed, the project will move into Phase II:

- Identify stakeholders and create a dialog among them. Dr. Mannan said that they would strive to keep the stakeholder group to a manageable size.
- Identify the goals and objectives for all stakeholders.
- Identify anomalies and differences in the goals and objectives of the stakeholders.
- Organize two to three national round table conferences to discuss the data. The Center hopes that stakeholders will be able to develop national consensus goals at the conference.

In Phase III of the Chemical Safety Program Assessment Project:

- Identify stakeholder program activities that contribute to indicators and collect data from stakeholders for measurement.
- Determine which indicators need improvement.
- Determine the cause and effect relationship between stakeholder goals and activities.
- Identify gaps in the achievement of national consensus safety goals. Dr. Mannan stated that they may find that some programs are ineffective.
- Develop metrics and methods to measure the programs' successes.

Finally, Phase IV will involve the following:

- Make the report public.
- Set in motion a continuous process of setting goals and looking at metrics.

Dr. Mannan stated that the Chemical Safety Program Assessment Project is funded in part by EPA and OSHA. He emphasized that the Center needs more funding, but most importantly, they need stakeholder participation in the project. Finally, Dr. Mannan concluded that the timing is good for the project because of the recent finalization of the CAA section 112 (r) rules and other projects that are ongoing.

Next, Dr. Mannan asked for questions and suggestions from subcommittee members. Mr. Langley suggested revising Phases I and II so that the first step is to determine the course of the study and then collect data pursuant to those goals. According to Mr. Langley, many pieces of data exist, but there is not a lot overall. He said that if goals were established first, data collection might be easier. Also, knowledge taken into the roundtable might influence the members because people tend to act on what little knowledge they might have, even if it is not the entire picture. Dr. Mannan replied that the entire project is a continuous process, and he felt that the stakeholders need to have at least some knowledge going into the round table to establish the national consensus goals. Mr. Langley also stated that the Center should be sure to include municipal chemical users because they can sometimes be more of a concern than chemical industries.

Mr. Gablehouse emphasized that the Center should make a concerted effort to get involvement from stakeholders that normally would not participate, such as K-12 schools and environmental groups.

Mr. Weaver reinforced Dr. Mannan's idea that small businesses need to be a focus. He also said that large companies that use chemicals, but do not manufacture them, should be included.

Mr. Rosenthal suggested that the Center use data from RMP\*Info because data in other databases are clinical, developed without suitable controls, do not show whether accident rates have increased or decreased, and do not show the effects of OSHA and EPA regulations. An epidemiological approach would be much more useful in determining the effects of regulations.

Jerry Scannell stated that this study is useful because it studies the regulations to determine if they do what they say they will do, a process that should be used to examine all regulations. Mr. Scannell suggested that the Center be careful in managing the size of the stakeholder group. He emphasized that workers need to be included because they know exactly what happens on the plant floor every day, and cautioned that AFL-CIO may not necessarily best represent industry workers. Mr. Scannell also mentioned that there are organizations and associations that can assist the Center in contacting small businesses. He noted that it is important to include small businesses because they are traditionally the ones who are not implementing the standards because they do not know or do not care about them. Gerry Poje suggested that one element is missing from the project strategy: how the effort is to be sustained and how the Center will keep stakeholders involved. He stated that some government policies used to train people for information dissemination would be effective with respect to this issue. Mr. Poje added that academia and other institutions involved in policy and training must be considered stakeholders because they are training the work force. Ms. Warren said that there should be indices by which successes can be measured because many databases and measurements currently collected are incompatible. Mr. Makris added that this issue is part of the problem where data is produced with a specific purpose in mind and so it seems to be of use to no one else but those involved in that particular study. He also said that data on near-miss accidents is also important. Mr. Makris emphasized that a study like this one needs to answer the question, "Is everything together making a difference?" Mr. Makris wrapped up the discussion by stating that the stakeholders at the meeting need to decide if the Center's effort is an important thing to do. He said that if everyone makes their collective effort, then it becomes sustainable.

#### **IV. UPDATE ON THE CHEMICAL SAFETY BOARD (Gerry Poje)**

Gerry Poje, of the Chemical Safety and Hazard Investigation Board (CSB or the Board), noted that the CSB was authorized on November 15, 1990, as part of the Clean Air Act Amendments. The Board was modeled in part after the National Transportation Safety Board (NTSB) and consists of five members, including the chairman, who are appointed by Congress and approved by the Senate; each board member serves for a term of five years. Board members are appointed on the basis of technical qualifications and professional standing in the fields of incident reconstruction, safety engineering, human factors, toxicology, or air pollution regulations.

Mr. Poje stated that, most importantly, Board actions are shielded from civil damage claims. This engenders more open access to information about chemical accidents, their root causes, and means to improve safety. Similarly, the mission of the Board is to promote safety and prevent chemical releases. Most explicitly, the mission of the Board includes investigating chemical incidents, analyzing causal factors, and reporting any findings and recommendations to prevent chemical disasters. A second activity of the Board is to advise Congress on any duplication of effort among federal agencies in preventing chemical incidents. Finally, CSB has a mission to conduct research and special studies. The Board also has the responsibility to develop and communicate recommended actions to improve safety in production, transportation, handling and use, and disposal of chemicals. The Board also has the requirement to establish requirements for reporting chemical incidents.

The Clean Air Act requires CSB to establish bindings on persons to report chemical releases. Chemical incidents must first be reported to the U.S. National Response Center (NRC). The NRC then notifies the Board, through a formal agreement. In addition, CSB has found that there are other important notification routes, such as through OSHA, EPA, and the general public.

The Board has a very explicit mandate, which states "investigate (or cause to be investigated), determine and report to the public in writing the facts, conditions and circumstances, and the cause or probable cause of any accidental release resulting in fatality, serious injury, or substantial property damage." CSB is an institution funded at the federal level with taxpayer dollars; for this fiscal year funding is \$4 million dollars, with anticipated resources of approximately \$6.5 million for next fiscal year.

Once notified, CSB alerts the company and federal, state, and local responders of their authorities to investigate. CSB deploys a team to conduct an on-site investigation of a chemical incident. CSB may also deploy Board members for enhanced coordination with Federal, State, and local entities.

Investigative efforts are coordinated with appropriate federal, state, and local enforcement and investigative agencies, such as BATF, OSHA, NIOSH, DOD, EPA, State OSHA, etc. CSB investigates and analyzes by gathering, preserving, and documenting physical evidence; interviewing witnesses; organizing public hearings; and

taking sworn testimonies. Next, the incident reconstruction team attempts to piece together the events that led to the incident and occurred during the incident. The Board may also engage in additional studies and research to aid the investigative effort. The goal in doing this is to understand the direct, contributing, and root causes of accidents; to understand the remedial options that are available for such an incident; and to identify prevention and mitigation opportunities.

Mr. Poje stated that the CSB staff then works with the Board itself to review preliminary facts, findings, and recommendations. The Board then completes the investigation through formal, public Board hearings. Mr. Poje reiterated that Board conclusions, findings, recommendations are inadmissible in suits for damages to ensure the Board work is not embroiled in private tort action; this is parallel to the NTSB approach. The Board may recommend changes in equipment, procedures, training, regulatory oversight, or law.

CSB has explicit requirements for coordination. This is accomplished through agreements and memorandums of understanding with NTSB and OSHA. The Board may utilize the expertise and experience of other federal agencies. In addition, the Board has explicit research authorities. CSB also collaborates by conducting studies in cooperation with other federal agencies having emergency response authorities, state and local government agencies, associations and organizations, and the non-profit sector. Mr. Poje stated that, toward that end, CSB held a one major meeting to look at some of the central issues surrounding prevention through research. The research topics addressed included incident databases, safer technologies, human factors (management systems, training), exposure and hazard assessment, and toxicology. The Board is required to issue periodic reports recommending measures to reduce the likelihood of accidents or the consequences of releases and proposing corrective steps to make production, processing, handling, and storage as safe and risk-free as possible.

Information on the CSB can be accessed via the Internet at [www.csb.gov](http://www.csb.gov), which is a site for collective engagement for many organizations, or at [www.chemsafety.gov](http://www.chemsafety.gov).

### **Year 2000 Computer Issue**

Next, Mr. Poje provided a brief presentation on the Year 2000 computer problem, on which the Board would welcome input. The basic Y2K problem is that older software and associated hardware may not function properly in the year 2000. In addition, the availability of skilled personnel to correct this immense problem in the limited amount of time available is an issue of critical concern.

The systems affected include personal computers, mainframes and mini-computers, programmable logic controllers, and embedded software. Sources of this problem include clocks, operating systems, application software, libraries, tools, etc. The cost estimate to resolve this issue has been reported by the General Accounting Office to be \$5.4 billion for the federal government, with an estimated overall cost of \$600 billion.

Computer failure concerns include outright crashing of the system, large observable errors, and small accumulating errors (which present the biggest concerns). Such computer errors could lead to unsafe actions being taken, as well as failure to take action. Sectors affected by the problem include manufacturing, electric utilities and energy, transportation, telecommunications, government at all levels, banking and finance, retail, and health care. The goals of the federal response to the Y2K problem involve promoting auditing and analysis of the problem. There is a call for increased strategy development and planning procedures, including contingency planning, to be followed by implementation of planning and testing activities. To begin resolving the problem EPA, OSHA, CSB, and others must work jointly on research, awareness training, coordination and cooperation, and enforcing preventative policies. Mr. Poje stated that the CSB intends to become increasingly vested in the project and, therefore, solicits any input that can be provided.

## **V. COMMENTS FROM THE PUBLIC**

Fred Millar commented that EPA should put more emphasis on a system for auditing RMPs. He stated that EPA's current risk management plan requirements simply ask for a summary of information, whereas the statute requires something more extensive. Next, Mr. Millar said that EPA has an institutional imperative to pass off the RMP implementation and delegate it to the states. According to Mr. Millar, states are getting pressure to minimize their

enforcement of environmental programs. Therefore, if EPA lowers the floor of enforcement requirements, the result is not good. The floor needs to be raised so that states will have more power for enforcement.

Mr. Millar stated that he is pleased with the 25 mile distance-to-endpoint decision. He stated that, contrary to earlier comments from the table, LEPCs do use worst-case scenarios when planning for emergencies, as evidenced by the Kanawha Valley and the Cleveland LEPC. He said that this practice has led to plants using safer chemicals in their processes. Mr. Millar added that the Chlorine Institute has concluded that a 41-mile vapor cloud is possible in some accident scenarios. Mr. Millar concluded with the suggestion that EPA compile a list of where worst-case scenarios have led to risk reduction.

Mr. Makris responded that the workgroup needs to consider the implementation issue and that they will start that process promptly.

Mr. Tariq Akmut, a member of the Milwaukee County LEPC, submitted a list of general comments and questions regarding the role of the LEPC and comments on the RMP Implementation Workgroup's Subgroup #7 *Report on the Roles of LEPCs and other Local Agencies*. Specifically, Mr. Akmut was concerned that LEPCs, as unfunded entities may not be able to carry out RMP implementation activities. Mr. Akmut concluded by thanking all of those who have worked to make the RMP program feasible and stating that the work products are excellent. Mr. Makris replied that the issue of resources is ongoing .

## **VI. EDF SCORECARD DEMO (Karen Florini)**

Karen Florini, of Environmental Defense Fund (EDF), demonstrated the web-based electronic Scorecard that EDF has developed. Her presentation, "Regulation by Revelation," described a case study on Internet-based incentives for pollution prevention to demonstrate what environmental and other organizations can do with chemical information. The basic premise of the project is that information is equal to power, and in a democracy, the power should be with the people. Ms. Florini emphasized that the chemical Scorecard uses currently available information. It is a database-backed website integrating 150 electronic data sets. EDF will decide whether or not to use RMP data when it becomes available.

The chemical Scorecard is currently available at [www.scorecard.org](http://www.scorecard.org). The site was launched in mid-April 1998 and has already received more than 10 million hits. The Scorecard is not yet fully optimized, and EDF is taking comments from users. The web site will soon have capabilities for facilities and the public to post comments and include links in URL format.

The Scorecard tries to take advantage of the concept that no one wants to be number one on a list of toxic polluters. It features a mapping component where users can zoom into a local level and click on a specific facility. When the facility is selected, information on the chemicals emitted by that facility are shown in terms of air, water, and health effects. The health effects are disaggregated into cancer and non-cancer hazards. Also presented are specific chemicals of concern for that particular facility (e.g., carbon tetrachloride). The weighting system used to determine the chemicals of concern is based on poundage and has been published in peer-reviewed literature. The Scorecard shows predominant uses for the chemicals at facilities and includes the Facility Safety Data Challenge, which compares safety claims made by a facility to publicly available data on that facility.

The website also contains an overview of various chemicals' characteristics. The Scorecard uses California's Proposition 65, which covers cancer toxicity, to determine health hazards of chemicals. The methodology for this determination is described on Scorecard web page.

## **VII. RMP INTERNET SECURITY ISSUE DISCUSSION**

Mr. Makris began the RMP discussion by introducing Tim Fields, Acting Assistant Administrator for EPA/OSWER; Peter Robertson, the designee for EPA Acting Deputy Administrator; and Basil Doyle from the FBI. Mr. Makris stated that the Subcommittee last met via conference call in February and the Subcommittee made a recommendation to EPA to post RMP data on the Internet with "speed bumps." Since that time, subsequent events, such as the bombing of two U.S. Embassies in Africa and the signing of two new Presidential Decision Directives (PDDs): PDD 62 (combating terrorism) and PDD 63 (protecting America's critical infrastructures) have intensified



and elevated the debate. In light of the increased awareness of terrorist risk, FBI has advised EPA that none of the OCA data be posted on the Internet.

To facilitate the discussion, Mr. Makris introduced Robert Fisher (Resolve). With respect to the Internet security issue and the dissemination of OCA data, Mr. Fisher stated that the purpose of the discussion is to review previously reached agreements; identify any open issues; understand differing viewpoints; review the options identified; and identify steps to provide OCA data to the public with minimal risk. To begin the discussion, Subcommittee members were asked to identify previously reached agreements. The following is a summary of Subcommittee comments.

- **Proposed Agreement: RMP data should be collected electronically in RMP\*Submit.**

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- **Proposed Agreement: "EPA, State Implementing Agencies, and LEPCs need full access to national data electronically."**

Subcommittee Comments:

Mr. Rosenthal stated that at a minimum, EPA headquarters should have full access to all data, States should have full access to their State data, and LEPCs should have full access to their local data.

Mr. Langley, Mr. Gablehouse, and Mr. Rosenthal agreed that it is a necessary requirement that SERCs, LEPCs, and Implementing Agencies have full access to RMP data of the facilities within the scope of their responsibility and in adjoining jurisdictions.

**Agreement: At a minimum, SERCs, LEPCs, and Administrating Agencies should have access to data pertaining to areas within their scope of responsibility and/or adjoining jurisdictions.**

**Agreement: Paper/hard copies should be made available to LEPCs that do not have Internet access.**

- **Proposed Agreement: Mr. Rosenthal proposed that research institutions would have access to the national database.**

Subcommittee Comments:

Mr. Burk suggested that some properly qualified research institutions could have access to national database.

Ms. Jones and Mr. Weaver emphasized that, under the Freedom of Information Act (FOIA), EPA is obligated to release the data upon request and can not make a distinction of who is "properly qualified."

Mr. Rosenthal added that FOIA requirements are a premise for Subcommittee discussions on this issue.

**Agreement: Properly qualified research organizations can have access to the national data (e.g., Wharton, CSB, environmental organizations)**

- **Proposed Agreement: The local community will have full access to RMP data.**

Subcommittee Comments:

Mr. Burk suggested that Internet access to national data with the exception of OCA data and chemical quantity is acceptable.

Mr. Rosenthal commented that under the existing Rule, the public must have access to the full contents of RMPs; however, the Rule does not specify in what format access must be provided.

**Agreement: The local community will have full access to RMP data.**

Additional Comments:

- Mr. Weaver stated that there was broad consensus that speed bumps or barriers to Internet access would be appropriate. This form of restricted access would not ultimately deny access; but instead slow down access and delay a systematic search of the database, thus minimizing the potential terrorist risk. However, the effort would not discourage individual searches.
- Mr. Burk commented that speed bumps are only acceptable provided OCA and chemical quantity are not accessible via the Internet.
- Mr. Weaver added that it is important to distinguish between electronic access and Internet access, because CD- ROMs are considered electronic access.

Following discussion of these points, the Subcommittee developed the following list of open issues, to which there was no Subcommittee consensus:

- Internet access to national data - OCA and chemical inventory;
- International access [*the open issue is: the Subcommittee did not agree that RMP data should be available internationally, however, FOIA is not restricted to US citizens*];
- What LEPCs need/how to satisfy requests;
- Properly qualified research organizations can have access to national data (Wharton, CSB, environmental organizations, others) [*the open issue is that EPA can not judge who is "properly qualified" and who isn't*]; and
- EPA has to release data electronically, upon request.

### **Comments on Proposed Options**

Next, EPA proposed for discussion three options to address the RMP security issue:

1. Providing password protection to the Internet site for access to OCA data;
2. Eliminating two sensitive data elements (distance to endpoint and populations affected); and
3. Eliminating the OCA data (both worst-case and alternative release data) on the Internet.

In addition, a fourth option was proposed by Art Burk (DuPont):

4. Omitting all OCA data and chemical quantity from the Internet.

Mr. Fisher asked each Subcommittee member to address each of the four options identified above by considering the following questions:

*How will the option counter terrorist risk?*

*Can I live with the option? If not, what can I change about the option so that I can live with it?*

The following is a compilation of Subcommittee comments on each of the four options:

#### **Option 1: Password protection**

- The password protections will not provide extra security; it will only serve to keep out those who need access to the data and not those who can get around it.
- This is an acceptable option if it makes people feel better.
- The information should go onto the Internet with the full amount of information available and with speed bumps. However, EPA should revisit the issue, taking into account the most recent terrorist actions. Under present law, the agency must be ready to provide the information to the public by June 21, 1999.
- There are increasingly easier ways to bypass password protection options.
- Implementing password protection would allow some control over who gets the information.
- It has been shown that providing air emission data to the public has decreased air emissions into the environment, and the same will hold true for RMP data.
- Most terrorist acts will not be caused by international terrorist organizations, but by domestic terrorists, who are primarily local and will, therefore, have access to the data regardless of the Internet restrictions. It seems as if the most recent terrorist attacks have been aimed at government facilities or large buildings where people gather, not at chemical facilities.
- The goal is to reduce the overall risk, and information empowers the public. By reducing the risk from a worst-case scenario through public pressure, the terrorist risk will also be reduced.

#### **Option 2: Omit sensitive data elements**

- The following sensitive data elements should be eliminated from the Internet version of the information: chemical quantity, distance to endpoint, population affected (number), and public receptors affected (1-17 (c)(3), 2-11, 2-12, 2-13, 3-11, 3-12, 3-12, 4-6, 4-7, 4-8, 5-6, 5-7, and 5-8). The remainder of sections 2, 3, 4, and 5, which include OCA data, should be left on the Internet.
- Internet accessibility of the "sensitive data elements" make it easiest for a group with bad intentions to target a particular facility.

#### **Option 3: Omit all OCA data from the Internet**

- Further study on this issue is warranted. Because we are not experts on this issue, we should defer to FBI's recommendation to not allow Internet access to OCA data.
- The most difficult statistic to collect is number of terrorist acts prevented. Although there are many public sources of similar information and terrorist "how to's" available, we have seen that nicely packaged

information on the least hardened targets is a source of information that would be used by terrorists. However, locals and those in national organizations reviewing this information should have access to the data. In conversations with many law enforcement representatives, individuals involved in state and local emergency planning, and first responders, great concern has been expressed over the availability of this information.

- Making full access to all data via the Internet will increase terrorist attacks. The three options will reduce that risk to some degree. Although password protections and removing sensitive data elements help somewhat, the only option that would completely reduce terrorist risk is removing the only data that is useful to a terrorist, which is the OCA data. Although EPA is charged with implementing legislation that will reduce the risk of accidental releases of chemicals and hazardous materials, Congress did not intend for the risk of an intentional release to increase by the actions taken to implement the legislation.
- No data should be omitted because the information will reach the Internet somehow.

#### **Option 4: Omit all OCA data and chemical quantity from the Internet**

- Internet access to OCA data and chemical registration has the greatest likelihood of stimulating terrorist intent for a particular target.
- It is foolish not to take the recommendations of FBI and CIA, which do not support posting OCA data on the Internet. It may be beneficial to remove the OCA data and chemical quantity from the Internet for a testing period. If the system is not adequate, the issue could be revisited at an appropriate time. In the meantime, it has already been agreed that the local communities, who are most at risk, will have access to the data.

#### **Other Comments**

- Options 2, 3, and 4 are unacceptable. Although the potential risk from terrorism is unquantifiable, there is a very real and very quantifiable risk of chemical accidents. The original intent of the law was to institute change in how industry operates in preventing, mitigating, or minimizing chemical accidents. Much of the changes that were successfully implemented were a result of public pressure due to the increased public awareness. If the sensitive data elements are eliminated from public access via the Internet, the heart of the RMP program is also eliminated by removing public oversight.
- No data should be omitted because the information will reach the Internet somehow. The tangible, positive benefits of risk reduction are being tampered with because of paranoia over terrorism. We must accept certain risks so as not to live in a police state.
- All of the options are unacceptable. It is foolish to think that data can be restricted from terrorists and those who want to cause harm, while simultaneously making it available to those who need it to protect the general welfare. None of the options will deter terrorism, but all of the options will prohibit the original intent of the Act.

### **VIII. COMMENTS FROM THE PUBLIC**

Lois Epstein (EDF) raised the issue that 20,000 reportable accidents occur per year, which equates to approximately 50 accidents per day. Under the TRI program, there has been a nearly fifty percent reduction in reported toxic release numbers in less than a decade. In addition, Ms. Epstein stressed that there is a very limited amount of time to resolve the Y2K computer problem. This problem creates a situation where computers will potentially malfunction at many facilities, and knowing that OCA data will be made available to the public, facilities need to address this issue and the increased risk it creates. Finally, Ms. Epstein stated that, as someone who works with community groups in analyzing data, the value added from technical staff, in terms of being able to interpret and provide context to the data, is enormous. It is very important that a broad range of organizations have access to RMP data because it provides a large amount of data to the community that they could not obtain otherwise.

Tariq Akmut, speaking as a Milwaukee County LEPC member, stated that, although the public needs RMP information, the manner in which it is provided must be addressed. Mr. Akmut used the example that anyone can break into his car; however, he makes it easier to break into his car if he leaves the door unlocked and the engine running. On the other hand, he can make it more difficult to steal his car by locking the door and keeping the keys in his pocket. Mr. Akmut stated that if public access is viewed in this way, the information should be made available to the local agencies (such as a fire department,) a Regional Response Team, or the LEPC; however, it should not be

easy to obtain the data to do harm. In addition, Mr. Akmut stressed the importance of maintaining a good relationship between the LEPC or local agency and the facility. Mr. Akmut stated that in his experience, the LEPC has worked with local facilities, even those not covered by EPCRA, to address community concerns. Mr. Akmut stated that, although much of the data are currently available through other sources, someone with the intent to do harm must invest more time and research in order to accomplish his task. Therefore, Mr. Akmut stressed that a balanced approach must be taken between making the data available to those who need it and not making it too easy to obtain by those with the wrong intentions.

Sam Mannan stated that the Subcommittee is at a crossroads with respect to the security issue dilemma. While he understands the concerns expressed by DOJ and FBI, he does not understand how EPA cannot follow what has been mandated by law; the CAA states that RMP data must be made available to the public. However, determining what "available" means can be discussed for a very long time. The issue is that, as long as the RMP data are available through some avenue, sooner or later someone will put it on the Internet. Dr. Mannan stated that a political decision must be made on this issue and, therefore, this discussion belongs at a much higher level than this Subcommittee, such as in the White House or Congress. The Subcommittee and EPA do not have a choice regarding whether the data can or cannot be made publicly available.

Jim Solyst (CMA) provided three comments. First, he stated that, aside from CMA's opposition to posting OCA data on the Internet, CMA strongly supports the risk management program. CMA is encouraging their facility managers to work closely with LEPCs, and CMA is providing training to facility managers to ensure that this information is being communicated to the public. CMA supports all RMP data being made available at the state and local level; their only concern involves posting the worst-case scenario data on the Internet. Secondly, CMA has expressed concern in the past regarding the lack of security expertise represented on the Subcommittee. However, today's representation by DOJ and FBI has alleviated many of those concerns. Thirdly, CMA supports a third-party government organization, such as the National Academy of Sciences, addressing this issue further in a timely fashion.

#### **Subcommittee Comments**

- Ms. Warren stated that, in response to the comment made by the FBI representative that the least hardened targets pose the most risk, the purpose of making RMP data easily accessible to the public is to harden those targets and, thus, reduce the potential risk.
- Mr. Langley stressed that the reality is that once the data are received by a state, OCA data will be posted on the Internet. In response, Dr. Rosenthal stated that if this is the case, it would be wrong to spend additional resources to develop an alternative mechanism. Mr. Makris noted that Dr. Rosenthal once commented that if the data will end up on the Internet anyway, it would be a shame if it was not put up by the industry with the data or the Agency responsible for implementing the law, or if it was put up in a way that is not sensible, but provocative, and with no security mechanisms at all.
- Mr. Burk expressed concern regarding the apparent disconnect among Federal agencies on this issue and, therefore, stated that the decision should be revisited at a level higher than this Subcommittee.
- In response to Mr. Langley's comment, Mr. Scannell stated that it is within reason to believe that states may be instructed by the Federal government to not post this data on the Internet.
- Governor Earl stated that Community Right-to-Know laws, sunshine laws, and Freedom of Information laws had their origin at the local level. As a result, state and local governments are very proprietary regarding Community Right-to-Know. Governor Earl stated that a huge conflict will ensue if the Federal government begins to announce that these laws have certain exemptions. Governor Earl stated that, regardless of what Congress decides, the situation described by Mr. Langley will undoubtedly occur.
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In concluding this discussion, Mr. Fields provided some remarks on the Subcommittee discussion of Internet access to RMP data. Mr. Fields began by commenting that it is clear that the Subcommittee's work is very important. Furthermore, he thanked the Subcommittee for the passion with which they have expressed their views on this very important issue. Mr. Fields stated that a decision on this issue is needed within the next few months to begin implementing the RMP mandate. He noted that agreement seems to have been reached on a few issues:

- LEPCs, SERCs, and other entities need access to the data applicable to their jurisdiction and adjoining jurisdictions;
- The data should be collected on the electronically;

- Full access to the data should be available to the local community;
- National data could be provided to properly qualified organizations; and
- Speed bumps and password protections could be helpful.

Mr. Fields stated that dialogue will continue with FBI, CIA, and others over the next several months about how to properly balance the needs of making information available, and pursuing implementation of section 112(r), with that of national security interests. Further discussion is needed regarding how to achieve the mandate of section 112(r) in making the information available to the public if the OCA data and chemical quantity are not on the Internet. Regardless of what the Subcommittee decides, it is likely that the data will be posted on the Internet and in a way that is unprotected. The decision needs to be whether a non-protected system that is available on the Internet is a worse alternative to providing the data with some password-protected approach on the Internet. Mr. Fields noted that the correct answer is not known at this point. However, the input received from the Subcommittee will be carefully weighed and considered and a decision will be made regarding how to best provide a balance between making the information available to the public, while simultaneously ensuring that the data are protected and not accessible to those who could cause undue harm.

## **IX. ALTERNATIVES TO INTERNET DISTRIBUTION OF RMP DATA**

The subcommittee members were next asked to respond to the following question: If OCA data is not put on the Internet, then how can the information be made available to the public at the local level in a meaningful way?

### **Idea 1**

It was suggested that the facility could fill out the RMP and have the option of checking a box that says that the public can request information from the facility directly. Then, the OCA information does not go on the Internet, but it is still available to the public. The facility would be required to provide the information to the public, LEPCs, etc. This option would internalize in facilities the costs of information dissemination, rather than placing that burden on the public. By opting out of the Internet method, the company bears the cost of disseminating the information. In addition, the company has some control over who receives the information.

### **Comments on Idea 1**

- A variety of federal statutes require facilities to hold information at their site for inspections; however, the public has no access to this information. How the facilities can be compelled to give out the information?
- Very few companies would agree to give out information and then not actually carry through with it.
- EPA already has an ongoing FOIA obligation and produces the information when requested to do so. In response, it was pointed out that the idea takes into account the law and politics of the situation.
- The public is apathetic about chemical risks unless they have had a personal experience with them. Therefore, we need to identify methods for making the information available to the public in a manner that provides easy access.
- Most people are more willing to go to EPA or a state agency than the industry.
- If an organization is in a contentious relationship with the facility or industry, the facility may not be cooperative and the organization will not want to visit the facility.
- Certain elements of the public may not fall under the jurisdiction of an LEPC and those members of the public may be uncertain as to which facility to request information from.

### **Idea 2**

The facility could aggressively seek out members of the public that might be at risk and let them know about the risk and how it might affect them.

### **Comments on Idea 2**

- This incorporates the idea that EPA does not have the only role in risk communication and reduction. Other players, like industry, should have a significant role.
- Facilities will be encouraged to be proactive and let the public know their worst-case information is out there and available upon request.

**Idea 3**

Although many facilities are not members of CMA, the organization could work with EPA and other agencies for training, communication, etc.

**Comments on Idea 3**

- The public often does not necessarily trust the information from industry or CMA, especially those members of the public heavily involved in risk issues.

**Idea 4**

The law does not say that the information must be made available electronically or over the Internet. Therefore, if paper copies have traditionally been stockpiled and distributed locally, then EPA can just distribute the information upon request.

**Comments on Idea 4**

- FOIA requires that if information is available in electronic format, it must be made available electronically, if requested.
- Many people do not have home Internet access. If someone requested OCA data from an agency, it seems that there would be a limit to the amount of data that could be requested.

**Idea 5**

The public should request information from the LEPC or other community organization as is done under EPCRA. This focuses efforts on the local community and provides an opportunity for dialog and communication, which is the goal of the regulation.

**Comments on Idea 5**

- LEPCs do not have the resources, financial or otherwise, to provide this information to the public. In that case, the facilities could provide the information.
- Has the information dissemination under EPCRA been very effective? If the concerned public requests the information, then they receive it; however, no dialog is stimulated and apathetic citizens remain uninterested in risk reduction.
- This idea is basically the equivalent of denying the information to the public because of the resource problems in getting the data out through LEPCs. If EPA or a state agency has the information, they should be the ones providing it. In fact, certain elements of the public may not fall under the jurisdiction of an LEPC and may be uncertain as to which facility to request information from. There is a disconnect between facilities and LEPCs. Everyone needs to work together to avoid gridlock and make more information publicly available.

**Idea 6**

The state should take the lead because they have more resources than LEPCs. EPA can take care of very large information requests, and state agencies can handle smaller, more routine requests. Most of the public does not request information under EPCRA and they will not request it under the RMP. Most information requests are from people who have very specific local interests.

**Comments on Idea 6**

No comments were provided on Idea 6.

**Other Comments**

- EPA needs to notify LEPCs/SERCs when RMPs have been filed.
- The public expects interplay between the facility and the public.
- The way the information is dispersed must be user-friendly, responsive, and inexpensive. State agencies usually must give out the information because of state FOIA-type laws; then, anyone can put the information on the Internet.
- Although many institutions would want all of the data available to do studies across time periods, a CD-ROM could be easily stolen from an office or other location.

- The intent of the law is to make the information available for a few purposes: for better planning of response, to let the community know the issues, and for use in relation to issues such as zoning. Environmental groups' interests are secondary to the main intent of the law, which is local knowledge and protection. Non-delegation states still have an obligation to support LEPCs and they should not be drawn into implementation. There is only one way to disseminate the information without the Internet: have tons of paper collected and stored at LEPCs and EPA. However, this is not a viable option because the paper is not being used. Current requests under EPCRA are very few.

## **X. LOOKING FORWARD/WRAP UP (Jim Makris)**

Mr. Makris noted that he has the counter-terrorism responsibility at EPA and, therefore, understands the issue from both sides of the debate. He stated that the process of coming to a resolution will be accelerated as much as possible without making rash decisions. In response to the comments that the issue needs to be discussed at a higher level, Congressman Boehlert has sent a letter to the White House soliciting their involvement, so there will certainly be discussion at that level, as well as within Congress. In addition, EPA and other federal organizations need to continue discussions with DOJ and FBI. Furthermore, Mr. Makris stated that agencies, such as EPA and OSHA, need to have more open conversations with industry over the next several months.

Mr. Makris stated that it is not likely that a new study will be commissioned. However, EPA will carefully follow every issue that has been presented and convene the Subcommittee via conference call soon. In addition, the issues discussed will be summarized and distributed to the Subcommittee very quickly. Mr. Makris thanked the Subcommittee for their time and effort and concluded by noting that, although terrorism is a very real threat, industrial chemical accidents occur every day.

### **List of Attendees**

Tariq Akmut - Rockwell Automation / Milwaukee County LEPC, Wisconsin

Bill Allmond - NACD

Richard Antoff - State of Delaware

Robert A. Barrish - State of Delaware

Gardner Bates - The Chlorine Institute

Bill Beck - Mobil

Rick Blum - OMB Watch

Seth Borenstein - Knight Ridder Newspapers

Dave Broocke - Reynolds Metals Company

\*Arthur F. Burk - E.I. DuPont De Nemours & Co. Inc.

John Calkin - GAF Materials Corporation

Matt Carter - OMB Watch

B. Chadwick -BoozAllen and Hamilton (EPA Hotline)

Jon Devine - U.S. EPA/OGC

Basil Doyle - FBI

\*Honorable Tony Earl - Center for Clean Air Policy

Ashley Ehrhart - BoozAllen and Hamilton

Lee Feldstein - NSC

Tim Fields - U.S. EPA/OSWER

Bill Finan - U.S. EPA/CEPPO

Robert Fisher - RESOLVE

\*Timothy Gablehouse - Jefferson County LEPC

\*Larry Gales - Oklahoma Department of Environmental Quality

Daniel Goldstein - ERM

David Goldston - Office of Representative Sherwood Boehlert

Melanie Granberg - Jefferson County, Colorado LEPC

Lyse Helsing - CSB

Irene. Jones - Huntsman

Kathy Jones - U.S. EPA/CEPPO

B. Kainth -BoozAllen and Hamilton (EPA Hotline)

Colleen Kelly - NPRA

James Kennedy - BNA

Daniel R. Kuespert - International Institute of Ammonia Refrigeration  
\*Bert Langley, Georgia Environmental Protection Department  
William Lash - Center for the Study of American Business  
\*Jim Makris - U.S. EPA/CEPPO  
Terrence Malone - US Filter  
Dr. Sam Mannan, Mary Kay O'Connor Process Safety Center  
\*Jim Meade, Department of Justice, Terrorism and Violent Crimes Division  
Fred Millar  
Dorie Mobley - BoozAllen and Hamilton  
Dorothy McManus - U.S. EPA  
Kate Narburgh - U.S. EPA  
\*Pam Nixon - Kanawha-Putnam Emergency Planning Committee  
Gerry Poje, Chemical Safety and Hazard Investigation Board  
Peter Robertson, U.S. EPA  
Neil Rochelle - U.S. Air Force  
\*Irv Rosenthal - The Wharton School  
Glynn Rountree - Aerospace Industries Association  
P. Rowsey - CMA  
Jim Solyst - CMA  
\*Jerry Scannell - National Safety Council  
Ruth Ellen Schelhaus  
Jean Schumann - U.S. EPA/OSWER  
Karen Shanahan - U.S. EPA/CEPPO  
David Speights - U.S. EPA/CEPPO  
David Thompson - NSC  
Richard Trinidad - U.S. EPA/OCEFT  
\*Jackie Warren - Environmental Attorney  
\*Jack Weaver - Center for Chemical Process Safety  
Baxter Wellmon - QEM, Inc.  
\*Accident Prevention Subcommittee Member

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